

WHAT IS CLAIMED IS:

1. A user support apparatus comprising:

an agent storage which stores data of a first agent being dedicated to a user serving based on information of the user and data of a second agent being an expert of a specific area; and

an agent output comp which outputs the first and second agents derived from said data;

wherein the first agent, when the second agent selects information necessary to serve the user, presents a selection guide to the second agent based on the user information in a manner that the user can recognize the presentation of the guide.

2. The apparatus of claim 1, further comprising an interface through which the user inputs an instruction, wherein the second agent selects the information putting higher priority on the input instruction than the presented guide.

3. The apparatus of claim 1, wherein the second agent is so configured to respond to the first agent when the guide is presented, and wherein the first and second agents collaborate while having conversation.

4. The apparatus of claim 1, wherein the first and second agents start conversation when time elapsed for the selection of the information exceeds a predetermined value.

5. A user support apparatus comprising:  
a front processor which works at a user interface level; and  
a middle processor which handles and stores data to be presented to the user via the front processor;  
wherein the front processor comprises an agent storage which stores data of a first agent being dedicated to the user serving based on information of the user and data of a second agent being an expert of a specific area, and  
wherein the first and second agents are designed in said data so that the first agent, when the second agent requests the middle processor provide information necessary to serve the user, presents a selection guide to the second agent based on the user information in a manner that the user can recognize the presentation of the guide.

6. A user support apparatus comprising:  
a front processor which works at a user interface level; and  
a back processor which acquires data to be presented to the user from outside;  
wherein the front processor comprises an agent storage which stores data of a first agent being dedicated to the user serving based on information of the user and data of a second agent being an expert of a specific area, and

wherein the first and second agents are designed in said data so that the first agent, when the second agent requests the back processor provide information necessary to serve the user, presents a selection guide to the second agent based on the user information in a manner that the user can recognize the presentation of the guide.

7. A user support apparatus comprising memory, program modules loaded on the memory and a CPU to execute the modules,

wherein the modules include functions of executing a first agent and a second agent,

the first agent being represented as a character to bridge the user and the apparatus and to serve the user in a user-dependent manner based on information of the user, and

the second agent being presented as a character to bridge the user and the apparatus and to serve the user for a specific area as an expert thereof, and

wherein the first agent, when the second agent selects information necessary to serve the user, presents a selection guide to the second agent based on the user information in a manner that the user can recognize the presentation of the guide.

8. A user support apparatus comprising:

an agent storage which stores data of a first agent and a second agent which bridge a user and the apparatus; and

an agent output unit which outputs the first and second agents derived from said data;

wherein the first and second agents are so configured to collaborate while having conversation recognizable from the user when the user requests a given service.

9. The apparatus of claim 8, wherein a process to optimize the service for the user is explicitly expressed in the conversation.

10. A user support apparatus comprising:

an agent controller which provides an agent to support a user;

an request analyzer which analyzes a request input from the user;

a response controller which presents to the agent controller necessary information for the requested service when the service has been judged processible and otherwise records the requested service as an unattained service.

11. The apparatus of claim 10, further comprising a communication unit which electronically reports the recorded unattained service to an administrator of the apparatus.

12. A user support apparatus comprising:

- an agent controller which provides an agent to support a user;
- a conversation data storage which stores conversation to be held between the user and the agent;
- an request analyzer which analyzes a request input from the user;
- a response controller which determines a response to the request based on result of the analysis; and
- a log storage which stores log of the conversation actually held between the user and the agent;

wherein the response controller which presents to the agent controller necessary information, read from the conversation data storage, for the requested service when the service has been judged processible and otherwise records in the log storage the requested service as an unattained service.

13. A user support apparatus using a character comprising:

- a first processor which conducts an agent level control and a second processor which conducts a character level control,

the first processor comprising:

- a total system manager which provides a field for a plurality of agents to interact and manages the plurality of agents; and
- a plurality of agent controllers each of which, through a character, acquires and interprets a user request so as to realize substantial functions of a respective agent; and

the second processor comprising:

a character manager which provides basic functions to visually represent interaction between the plurality of agents at the character level; and

a plurality of character controllers, each of which corresponds to one of the plurality of agent controllers and provides a series of character actions to the corresponding agent controller for use therein;

wherein interface between a horizontal function between the plurality of agents which is provided by the total manager and the character manager, and an individual function provided by the agent controller and the character controller, is predetermined for the plurality of agent controllers and the plurality of character controllers.

14. The apparatus of claim 13, wherein the predetermined interface absorbs difference of output formats of the plurality of characters and wherein the plurality of characters simultaneously appear on a single screen to interact.

15. The apparatus of claim 13, further comprising a region generator which corresponds to one of the plurality of agent controllers and which generates a window or a frame to display process result of the corresponding agent controller.

16. The apparatus of claim 13, wherein the plurality of agent controllers are segmented to a plurality of specific areas and wherein each of the plurality of agent controllers works for its specific area as an expert.

17. The apparatus of claim 13, wherein the apparatus is implemented as a client of a client-server system and wherein the substantial function of the agent controller at least is achieved by communication with the server.

18. The apparatus of claim 13, wherein the apparatus is implemented as a server of a client-server system and wherein the substantial function of the agent controller at least is achieved by communication with the client.

19. The apparatus of claim 13, wherein the character controller comprises an action file which describes actions to cope with the user request, the file being formed as a bundle of multiple pages, each page corresponding one of the actions.

20. The apparatus of claim 13, wherein the interaction includes conversation between the characters and wherein the total manager hands conversation data from one character to another character to realize the conversation.

21. The apparatus of claim 13, wherein the character manager acquires positional relation between the characters and initiates the interaction by changing the relation.

22. A client-server system using a character to support a user,  
wherein the client comprises a first processor which conducts an agent  
level control and a second processor which conducts a character level control,  
the first processor comprising:  
a total system manager which manages a plurality of agents to achieve  
interaction therebetween; and  
a plurality of agent controllers, each of which, through a character,  
acquires and interprets a user request so as to realize substantial functions of a  
respective agent; and  
the second processor comprising:  
a character manager which represents the interaction between the  
plurality of agents at the character level; and  
a plurality of character controllers, each of which corresponds to one of  
the plurality of agent controllers and provides a series of character actions to  
the corresponding agent controller for use therein;  
wherein the server, collaborating with the client, interprets the user  
request and presents to the client information necessary to respond the request.

23. The system of claim 22, the server further comprises a control  
window manager which provides functions of the total manager and the  
character manager to the client.



24. The system of claim 22, wherein the server comprises a plurality of expert servers, each of which, for service in specific area, provides functions of the agent controller and the character controller to the client.

25. An user support method using a character, comprising:  
conducting agent level control and conducting character level control,  
wherein the agent level control provides a total management process to manage a plurality of agents to achieve interaction therebetween and a plurality of agent control processes, each of which responds to a user request via a respective character; and

wherein the character level control provides a character control process to represent the interaction between the agents at the character level and a plurality of character control processes, each of which corresponds to one of the agent control processes and provides a series of character actions to the corresponding agent control process; and

wherein interface between a horizontal function between the plurality of agents and a function individual to each agent is predetermined for the plurality of characters.

26. A user support apparatus comprising:  
a user utterance identification block which comprises an electronic user utterance list holding expected utterance and identifies user utterance when it is inputted;

a plurality of response blocks, each of which makes one of agents, the agents being designed to have respective specific areas to work, respond to the inputted utterance when the utterance is included in a specific area assigned to the agent; and

a registration unit which stores in a storage region provided for each specific area a network address of a web site according to a request of the user.

27. The apparatus of claim 26, wherein the response block comprises a search unit which searches a web site having information desired by the user therein and wherein the registration unit stores the network address of the searched web site to a storage region assigned to the response block having the search unit which conducted the search.

28. The apparatus of claim 26, further comprising a display unit which presents registered web sites classified to the storage regions.

29. A network system comprising a plurality of user support apparatuses of claim 26 connected to the network as independent nodes, each of the apparatuses corresponding to one specific area, wherein the user utterance list and an agent action library of each apparatus are designed to concentrate on the area associated with the apparatus.

30. The system of claim 29, wherein the apparatus stores the respective response block therein while using the utterance identification block commonly with other apparatuses, the block being stored in one of the apparatuses.

31. A user support apparatus comprising:

a user utterance identification block which comprises an electronic user utterance list holding expected utterance and identifies utterance of the user when it is inputted; and

a response block which has an electronic agent action library to respond to the utterance and which makes an agent respond to the utterance;

a search item holder which acquires and holds in advance items of information the user wishes to search; and

a search unit which conducts search for the items;

wherein the utterance identification block further comprises an additional utterance list containing utterance for which the search unit is assumed to start the search, and

wherein the search unit starts the search when the utterance of the user is detected contained in the additional utterance list.

32. The apparatus of claim 31, wherein the search unit starts the search spontaneously without an instruction from the user.

33. The apparatus of claim 31, wherein each field of information is associated with a character and wherein the apparatus further comprises a character display unit which presents to the user result of the search in the form of utterance of a character which is associated with a field to which the search result is classified.

34. The apparatus of claim 33, wherein the search item holder further comprises a bookmark holder which stores a network address of a web site and wherein the search unit acquires update information of the web site.

35. The apparatus of claim 34, wherein the character display unit presents the user the update information in the form of utterance of a character when a web site which is classified to a field with which the character is associated.

36. The apparatus of claim 33, further comprising a character manager which manages attribute value of the character, which changes the value based on treatment of the character by the user and which changes behavior of the character based on the value.

37. The apparatus of claim 36, wherein the character manager changes frequency to check the update information of a web site which is classified to the field associated with the character, based on the value of the character.

38. A network system comprising a plurality of user support apparatuses of claim 31 connected to the network as independent nodes, each of the apparatuses corresponding to one specific area, wherein the user utterance list, the additional utterance list and the agent action library of each apparatus are designed to concentrate on the area associated to the apparatus.

39. The system of claim 38, wherein the apparatus stores the respective response block therein while using the utterance identification block commonly with other apparatuses, the block being stored in one of the apparatuses.